

GBM Status - Detectors

- ♠ **BGO Crystal-Assembly vibration test this week (on acceptance-test level, no qualification)**
- ♠ **EQMs will be delivered to MSFC in December**
- ♠ **Delivery of PSB expected by December 2004**
- ♠ **Delivery of all flight units expected by April 2005**
- ♠ **Low-energy response will not reach goal of 5 keV**
 - λ **Crismatec determined that a 0.7 mm silicone pad was required in the NaI detector entrance window**
 - λ **Total transmission is ~6% at 8 keV; 25% at 10 keV**
 - λ **Meets Level II requirement for measurements at 10 keV**
 - λ **Misses Level III requirement for effective area at 14 keV (76 cm² versus 100 cm²)**

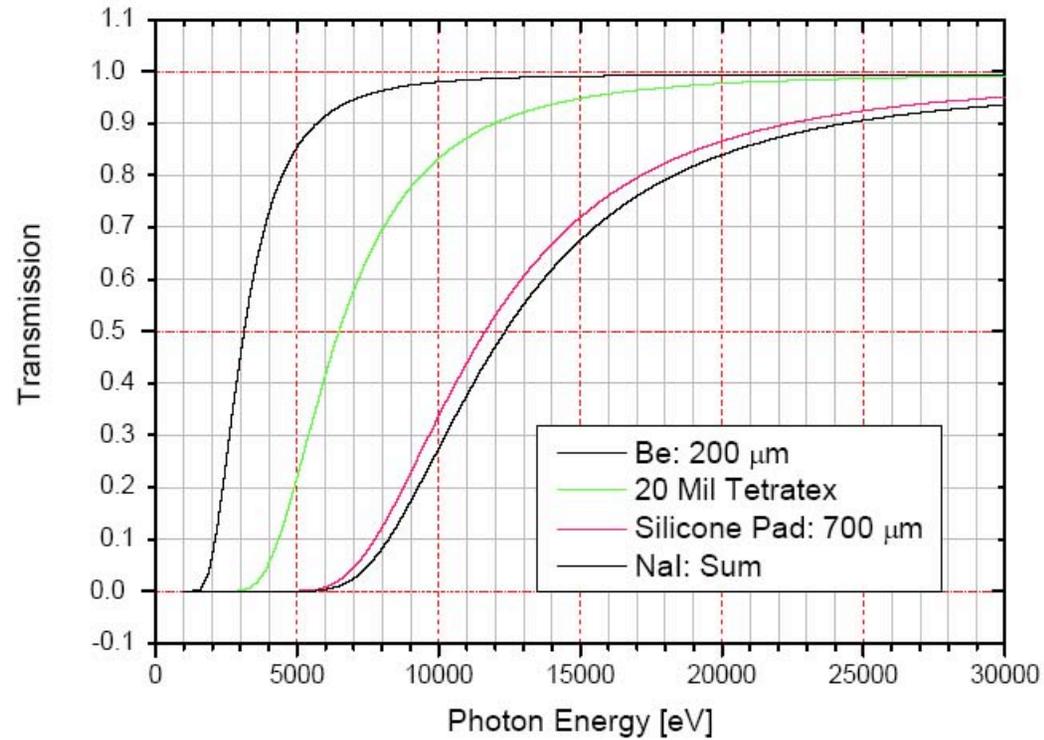
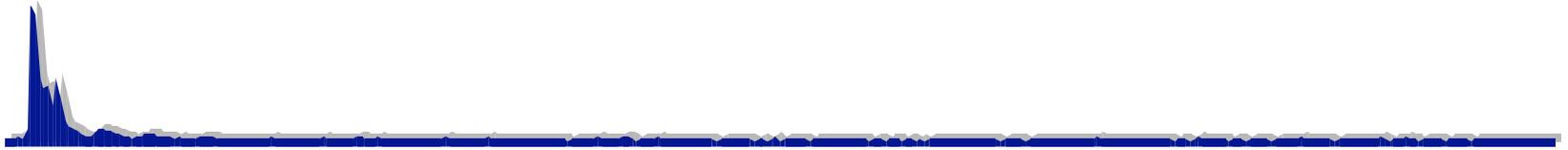


Fig. 4: X-ray transmission of all individual layers of the NaI detector entrance window and of the sum of all components.

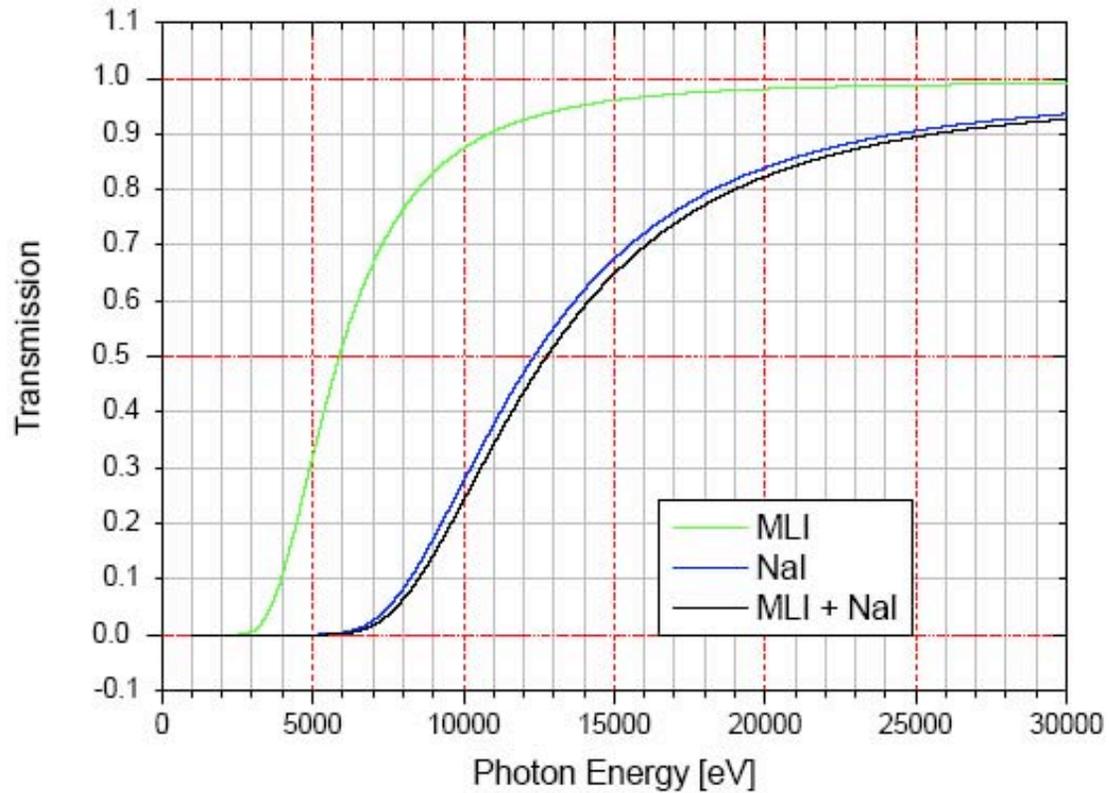
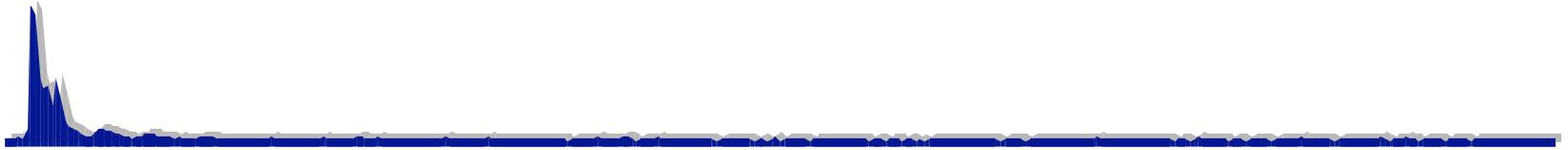
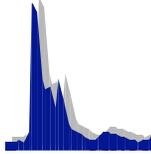


Fig. 5: X-ray transmission of MLI and NaI detector (individual and as sum).



GBM Status - DPU

- ♠ **Minor changes to design recently to reduce noise and improve clock pulse edges**
- ♠ **Both engineering units upgraded**
- ♠ **Flight DPU delivery November 2004**



GBM Status – Flight Software

- ♠ **Crash problem solved – two causes (operating system bug and clock pulse shape)**
- ♠ **Build 1 delivered – meets 40-50% of requirements for flight**
- ♠ **Verification testing 60% complete**
- ♠ **Delivery to SwRI October 26**
- ♠ **Main issue is meeting all requirements in Build 2, due by April 2005 to meet PER in June. Some level III requirements are expected to be deferred:**
 - λ **Burst alert temporal history**
 - λ **TTE detector selection**
 - λ **AGC**